

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Atty. Docket: NL 020663

MICHEL PAUL BARBARA VAN BRUGGEN ET AL.

Confirmation No. 2504

Serial No. 10/520,311

Group Art Unit: 1793

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Examiner: VIJAYAKUMAR, K.M.

Title: TRANSPARENT POLYCRYSTALLINE ALUMINUM OXIDE

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Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

CORRECTED APPEAL BRIEF

Sir:

Appellants herewith respectfully present a corrected Summary of the Claimed Subject Matter of the Brief on Appeal, responsive to the Notice of Non-Compliant Appeal Brief mailed on May 20, 2008, related to a Brief on Appeal that was filed on May 13, 2008 and a Supplemental Brief on Appeal that was filed on May 14, 2008.

Please delete the previously submitted Summary of the Claimed Subject Matter, and substitute the following Summary of the Claimed

Subject Matter, included herein. Further, it should be noted that although the Brief on Appeal that was filed on May 13, 2008 was missing the signature of Dicran Halajian, the Supplemental Brief on Appeal that was filed on May 14, 2008 did include the signature of Dicran Halajian.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention, for example, as recited in independent claim 11, is directed to a polycrystalline alumina component. As described on page 3, lines 21-27 of the specification, the polycrystalline alumina component comprises an additive, where the polycrystalline alumina component has an average crystal size $\leq 2\mu\text{m}$, has a relative density higher than 99.95%, and is transparent with a real in-line transmission $\text{RIT} \geq 30\%$ measured over an angular aperture of at most 0.5° at a sample thickness of 0.8mm and with a single wavelength of light λ . The additive comprises Mg oxide.

The present invention, for example, as recited in independent claim 14, is directed to a discharge lamp. As shown in FIG 1 and described on page 3, lines 21-27, and page 8, lines 5-22 of the specification, the discharge lamp comprises a discharge tube having a wall of a ceramic. The ceramic comprises a polycrystalline alumina component with an additive. The alumina of the polycrystalline alumina component has an average crystal size $\leq 2\mu\text{m}$, and a relative density higher than 99.95%, and is transparent with a real in-line transmission $\text{RIT} \geq 30\%$ measured over an angular

aperture of at most 0.5° at a sample thickness of 0.8mm and with a single wavelength of light λ . The additive comprises Mg oxide.

The present invention, for example, as recited in independent claim 16, is directed to a method for forming a polycrystalline alumina component with an additive. As described on page 4, lines 1-13, and page 8, lines 5-22 of the specification, the method comprises preparing a slurry of corundum power with a mean grain size $\leq 0.2\mu\text{m}$; and adding a dopant formed by a precursor containing Mg and oxides of Mg.


As described on page 4, lines 14-25, the slurry is cast in a mold, and the molded body thus formed is dried and sintered, and an HIP treatment is performed at a temperature of at least 1150°C for at least 2 hours.

As described on page 3, lines 21-27, the alumina of the component has an average crystal size $\leq 2\mu\text{m}$, and a relative density higher than 99.95%, and is transparent with a real in-line transmission $\text{RIT} \geq 30\%$ measured over an angular aperture of at most 0.5° at a sample thickness of 0.8mm and with a single wavelength of light λ , and wherein the additive comprises Mg oxide.

CONCLUSION

In view of the above, it is respectfully submitted that the Brief on Appeal is compliant and consideration on the merits is respectfully requested.

Respectfully submitted,

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